

How should we measure loneliness in older adults?

A comparison of single- and multi-item measures

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Background

- Older adults are a key risk-group for loneliness, which is associated with poor mental and physical health.
- There are many measures of loneliness currently used with older adults, both direct single-item and indirect multi-item measures, although most were not developed in the older adult population.

Research questions

- How do single- and multi-item measures capture loneliness in older adults?
- ...in various subgroups?
- ...with reference to various health and psychosocial variables?
- ...at different levels of loneliness?

Comparing single- and multi-item measures of loneliness

Single-item measures	Multi-item measures
Limited score range = less sensitive	Larger score range = more sensitive
Indeterminate reliability	Higher reliability
Direct (item asks about loneliness, being lonely)	Indirect (items measure indicative emotions, psychological states, etc.)
Unidimensional	Uni- or multidimensional
Good face validity	Need to establish construct validity in population
High potential for stigma/under-reporting	Low potential for stigma/under-reporting
Quick to administer	Possible respondent fatigue

Design

Swedish Panel Study of Living Conditions of the Oldest Old (SWEOLD)

- Questionnaire-based, primarily telephone-administered survey of adults 77+ years living in Sweden
- 2021 data collection wave, N=1599 (63.9% response rate)
- Excluding indirect interviews (due to e.g., cognitive impairment), the analytic sample was n=1268



Photo: Sara Eng

Measures

Single items

- Bothered by loneliness:** Are you ever bothered by feelings of loneliness? (SWEOLD): Nearly always; Often; Seldom; Almost never
- Feeling lonely:** How much of the time do you feel lonely? (SHARE): Often; Some of the time; Hardly ever; Never

3-item UCLA Loneliness Scale

How often do you feel that you lack companionship? How often do you feel left out? How often do you feel isolated from others?

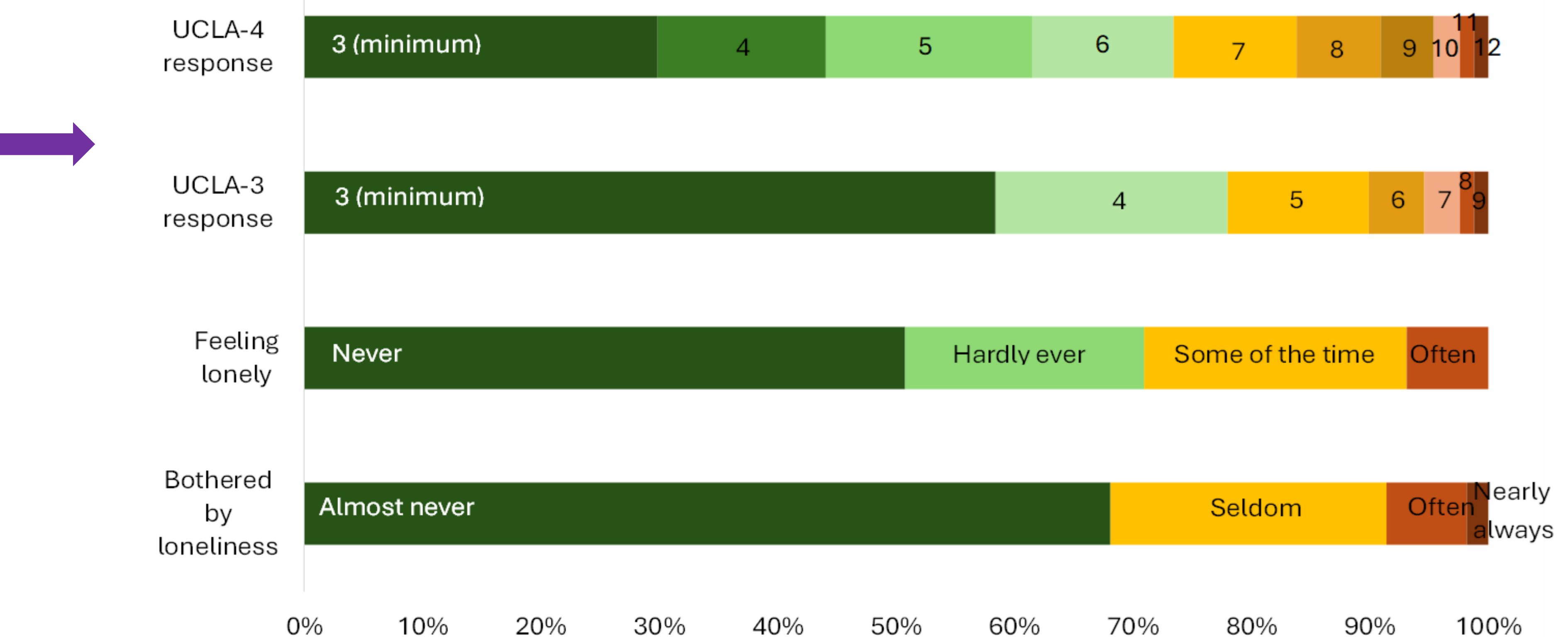
- UCLA-3 response** (SHARE; Cronbach’s alpha=0.703): Often; Some of the time; Hardly ever or never
- UCLA-4 response** (SWEOLD; Cronbach’s Alpha=0.745): Often; Some of the time; Hardly ever; Never

Response distributions

More participants were identified as never/hardly ever lonely by the single items (≈70%) than by the UCLA scale (≈60%).

Sensitivity & correlations

- Using the UCLA for comparison, the single items had poor sensitivity (43-47%) for detecting lonely individuals.
- Correlations between the measures ranged from .63 to .75, although 8% of participants scoring low on ‘bothered by loneliness’ scored higher on ‘feeling lonely’.
- All loneliness measures were significantly correlated with all psychological, social and health variables (r=.46 to .14).



Measure	Never	Hardly ever	Some of the time	Often
UCLA-4 response	3 (minimum)	4	5	6
UCLA-3 response	3 (minimum)	4	5	6
Feeling lonely	Never	Hardly ever	Some of the time	Often
Bothered by loneliness	Almost never	Seldom	Often	Nearly always

Low levels of loneliness

Participants responding ‘hardly ever’ being bothered by loneliness had significantly lower life satisfaction, self-rated health, mobility and social support, and higher anxiety than those responding ‘never’.

	Never	Hardly ever
Life satisfaction	8.61	7.99***
Self-rated health	1.59	1.41**
Anxiety	0.12	0.23*
Mobility limitations	1.14	1.50**
Social support	4.66	4.41*



Photo: Sandra Humer

Conclusions

- Estimates of loneliness prevalence should be considered with caution, as they vary with the form of measurement and response options used.
- Measures need to be sensitive to variation in loneliness at low levels, as relatively small differences at such levels are associated with significant differences in psychological, social and health variables.